

What Is Claimed:

- 1 1. An isolated nucleic acid molecule having a
2 nucleotide sequence as shown in SEQ ID NO:1.
- 1 2. The isolated nucleic acid molecule of claim 1
2 wherein said nucleic acid molecule encodes an amino acid
3 sequence as shown in SEQ ID NO:3.
- 1 3. The isolated nucleic acid molecule of claim 1
2 wherein said nucleic acid is deoxyribonucleic acid.
- 1 4. The isolated nucleic acid molecule of claim 3
2 wherein said deoxyribonucleic acid is cDNA.
- 1 5. The isolated nucleic acid molecule of claim 1
2 wherein said nucleic acid is ribonucleic acid.
- 1 6. The isolated nucleic acid molecule of claim 5
2 wherein said ribonucleic acid is mRNA.
- 3 7. The isolated nucleic acid molecule of claim 1
4 wherein said nucleic acid encodes a transcriptional
5 activity.
- 1 8. An oligonucleotide complementary to at least a
2 portion of the mRNA of claim 6.
- 1 9. A cell comprising the oligonucleotide of claim
2 8.
- 1 10. An expression vector comprising the
2 oligonucleotide of claim 8.

1 11. The expression vector of claim 10 wherein the
2 expression vector is selected from the group consisting
3 of a plasmid and a virus.

1 12. A cell comprising the expression vector of
2 claim 10.

1 13. A method of decreasing expression of a
2 transcriptional activator protein in a host cell, said
3 method comprising introducing the oligonucleotide of
4 claim 8 into the cell, wherein said oligonucleotide
5 blocks translation of said mRNA so as to decrease
6 expression of said transcriptional activator protein in
7 said host cell.

1 14. A cell comprising the nucleic acid molecule of
2 claim 1.

1 15. An expression vector comprising the nucleic
2 acid molecule of claim 1.

1 16. The expression vector of claim 15 wherein said
2 expression vector is selected from the group consisting
3 of a plasmid and a virus.

1 17. A cell comprising the expression vector of
2 claim 15.

1 18. A method of increasing expression of
2 transcriptional activator protein in a host cell, said
3 method comprising:

4 introducing the nucleic acid molecule of claim 1
5 into the cell; and

6 allowing said cell to express said nucleic acid
7 molecule resulting in the production of transcriptional
8 activator protein in said cell.

1 19. A method of screening a substance for the
2 ability of the substance to modify transcriptional
3 activator protein function, said method comprising:

4 introducing the nucleic acid molecule of claim 1
5 into a host cell;

6 expressing said transcriptional activator protein
7 encoded by said nucleic acid molecule in the host cell;

8 exposing the cell to a substance; and

9 evaluating the exposed cell to determine if the
10 substance modifies the function of the transcriptional
11 activator protein.

1 20. The method of claim 19 wherein said evaluation
2 comprises monitoring the expression of transcriptional
3 activator protein.

1 21. A method of obtaining DNA encoding a
2 transcriptional activator protein, said method
3 comprising:

4 selecting a DNA molecule encoding a transcriptional
5 activator protein, said DNA molecule having a nucleotide
6 sequence as shown in SEQ ID NO:1;

7 designing an oligonucleotide probe for a
8 transcriptional activator protein based on the nucleotide
9 sequence of the selected DNA molecule;

10 probing a genomic or cDNA library of an organism
11 with the oligonucleotide probe; and

12 obtaining clones from said library that are
13 recognized by said oligonucleotide probe, so as to obtain
14 DNA encoding a transcriptional activator protein.

1 22. A method of obtaining DNA encoding a
2 transcriptional activator protein, said method
3 comprising:

4 selecting a DNA molecule encoding a transcriptional
5 activator protein, said DNA molecule having a nucleotide
6 sequence as shown in SEQ ID NO:1;

7 designing degenerate oligonucleotide primers based
8 on the nucleotide sequence of the selected DNA molecule;
9 and

10 utilizing said oligonucleotide primers in a
11 polymerase chain reaction on a DNA sample to identify
12 homologous DNA encoding a transcriptional activator
13 protein in said sample.

1 23. An isolated nucleic acid molecule encoding a
2 transcriptional activator protein, said nucleic acid
3 molecule encoding a first amino acid sequence having at
4 least 90% amino acid identity to a second amino acid
5 sequence, said second amino acid sequence as shown in SEQ
6 ID NO:3.

1 24. A DNA oligomer capable of hybridizing to the
2 nucleic acid molecule of claim 1.

1 25. A method of detecting presence of a
2 transcriptional activator protein in a sample, said
3 method comprising:

4 contacting a sample with the DNA oligomer of claim
5 24, wherein said DNA oligomer hybridizes to any of said

6 transcriptional activator protein present in said sample,
7 forming a complex therewith; and
8 detecting said complex, thereby detecting presence
9 of a transcriptional activator protein in said sample.

1 26. The method of claim 25 wherein said DNA
2 oligomer is labeled with a detectable marker.

1 27. An isolated protein, wherein said protein is
2 encoded by a nucleotide sequence as shown in SEQ ID NO:1.

1 28. The protein of claim 27 wherein said protein
2 has transcriptional activator activity.

1 29. The protein of claim 27 wherein said protein is
2 encoded by an amino acid sequence as shown in SEQ ID
3 NO:3.

1 30. An isolated protein encoded by a first amino
2 acid sequence having at least 90% amino acid identity to
3 a second amino acid sequence, said second amino acid
4 sequence as shown in SEQ ID NO:3.

1 31. An antibody or fragment thereof specific for
2 the protein of claim 30.

1 32. The antibody of claim 31 wherein said antibody
2 comprises a monoclonal antibody.

1 33. The antibody of claim 31 wherein said antibody
2 comprises a polyclonal antibody.

1 34. A method of detecting presence of a
2 transcriptional activator protein in a sample, said
3 method comprising:

4 contacting a sample with the antibody or fragment
5 thereof of claim 31, wherein said antibody or fragment
6 thereof binds to any of said transcriptional activator
7 protein present in said sample, forming a complex
8 therewith; and

9 detecting said complex, thereby detecting presence
10 of a transcriptional activator protein in said sample.

1 35. The method of claim 34 wherein said antibody or
2 fragment thereof is labeled with a detectable marker.

1 36. A method of producing an antibody specific for
2 a transcriptional activator protein in a host, the method
3 comprising:

4 selecting the isolated transcriptional activator
5 protein of claim 27 or an antigenic portion thereof; and

6 introducing the selected transcriptional activator
7 protein or antigenic portion thereof into a host to
8 induce production of an antibody specific for
9 transcriptional activator protein in the host.